

# 6HM5/6HA5

## High-Mu Triode

### 7-PIN MINIATURE TYPE

Useful as Grounded-Cathode RF-Amplifier Tube in VHF Tuners

#### Electrical:

##### Heater Characteristics and Ratings:

Voltage (AC or DC) . . . . .  $6.3 \pm 0.6$  volts

Current at heater volts = 6.3 . . . . . 0.180 amp

##### Peak heater-cathode voltage:

Heater negative with respect to cathode . . . . . 110 max. volts

Heater positive with respect to cathode . . . . . 110 max. volts

##### Direct Interelectrode Capacitances:<sup>a</sup>

Grid to plate . . . . . 0.36 pf

Grid to cathode, internal shield, external shield, and heater . . . . . 4.3 pf

Plate to cathode, internal shield, external shield, and heater . . . . . 2.9 pf

Cathode to plate . . . . . 0.080 pf

Cathode to grid, internal shield, external shield, and heater . . . . . 3.1 pf

Heater to cathode . . . . . 2.3 pf

Heater to grid . . . . . 0.070 max. pf

##### Characteristics, Class A<sub>1</sub> Amplifier:

Plate Voltage . . . . . 135 volts

Grid Voltage . . . . . -1 volt

Amplification Factor . . . . . 72

Plate Resistance (Approx.) . . . . . 5000 ohms

Transconductance . . . . . 14500  $\mu$ mhos

Plate Current . . . . . 11.5 ma

Grid Voltage (Approx.) for Transconductance ( $\mu$ mhos) = 150 . . . . . -5.7 volts

#### Mechanical:

Operating Position . . . . . Any

Type of Cathode . . . . . Coated Unipotential

Maximum Overall Length . . . . . 2-1/8"

Maximum Seated Length . . . . . 1-7/8"

Length, Base Seat to Bulb Top

(Excluding tip) . . . . . 1-1/2"  $\pm$  3/32"

Diameter . . . . . 0.650" to 0.750"

Dimensional Outline . . . . . See *General Section*

Bulb . . . . . T5-1/2

Base . . . . . Small-Button Miniature 7-Pin (JEDEC No. E7-1)



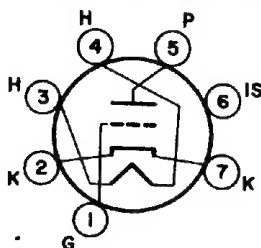
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DATA 1  
10-63

# 6HM5/6HA5

Basing Designation for BOTTOM VIEW. . . . . 7GM

Pin 1 - Grid  
Pin 2 - Cathode  
Pin 3 - Heater  
Pin 4 - Heater



Pin 5 - Plate  
Pin 6 - Internal  
Shield  
Pin 7 - Cathode

## AMPLIFIER - Class A<sub>1</sub>

### Maximum Ratings, Design-Maximum Values:

Plate Supply Voltage. . . . .	600 max.	volts
Plate Voltage . . . . .	220 max.	volts
Grid Voltage:		
Negative-bias value . . . . .	50 max.	volts
Positive-bias value . . . . .	0 max.	volts
Cathode Current . . . . .	22 max.	ma
Plate Dissipation . . . . .	2.6 max.	watts

### Typical Operation:

Plate Voltage . . . . .	135	volts
Grid Voltage. . . . . Adjusted for grid $\mu a = 10$		
Plate Load Resistance . . . . .	1000	ohms
Amplification Factor. . . . .	80	
Plate Resistance (Approx.). . . . .	4000	ohms
Transconductance. . . . .	20000	$\mu mhos$
Plate Current . . . . .	19	ma

### Maximum Circuit Values:

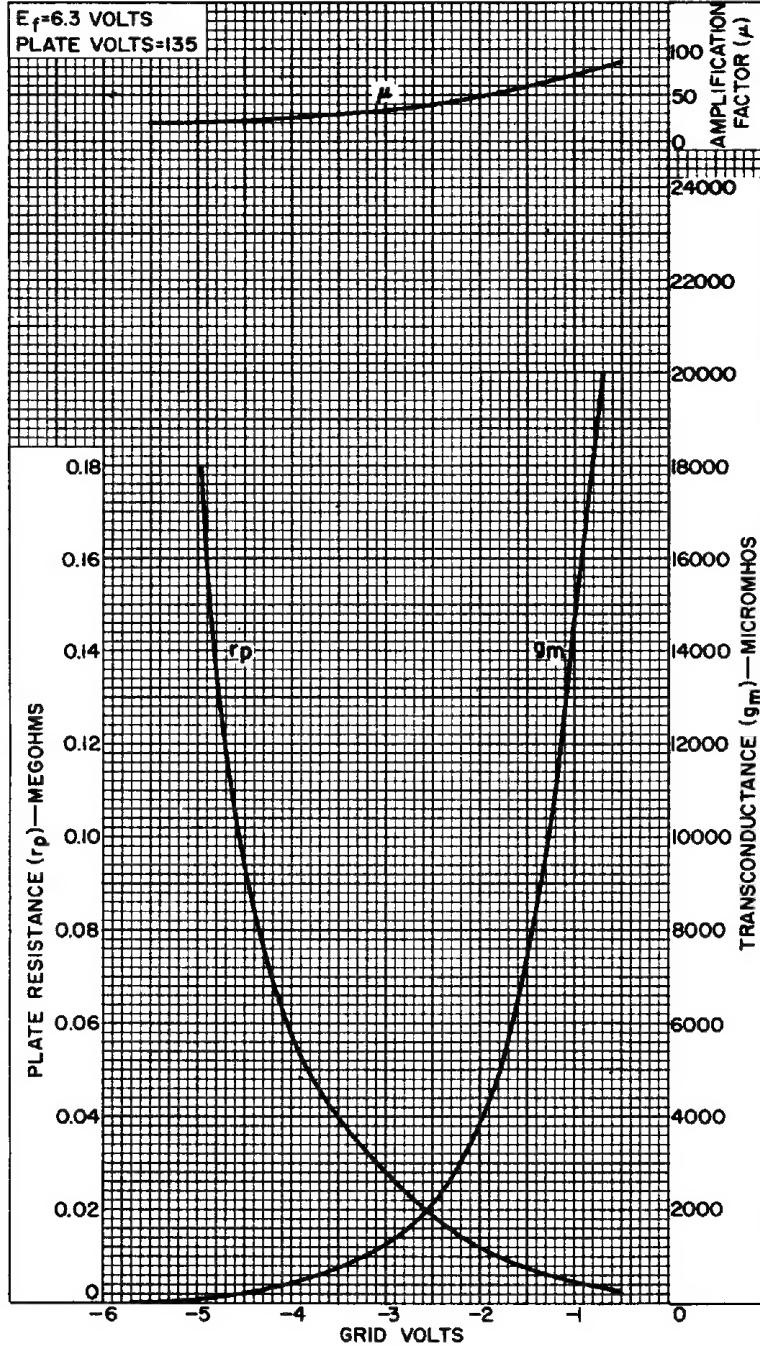
Grid-Circuit Resistance:		
For fixed-bias operation. . . . .	1 max.	megohm
For cathode-bias operation. . . . .	1 max.	megohm

<sup>a</sup> With external shield JEDEC No.316 connected to cathode.



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## AVERAGE CHARACTERISTICS



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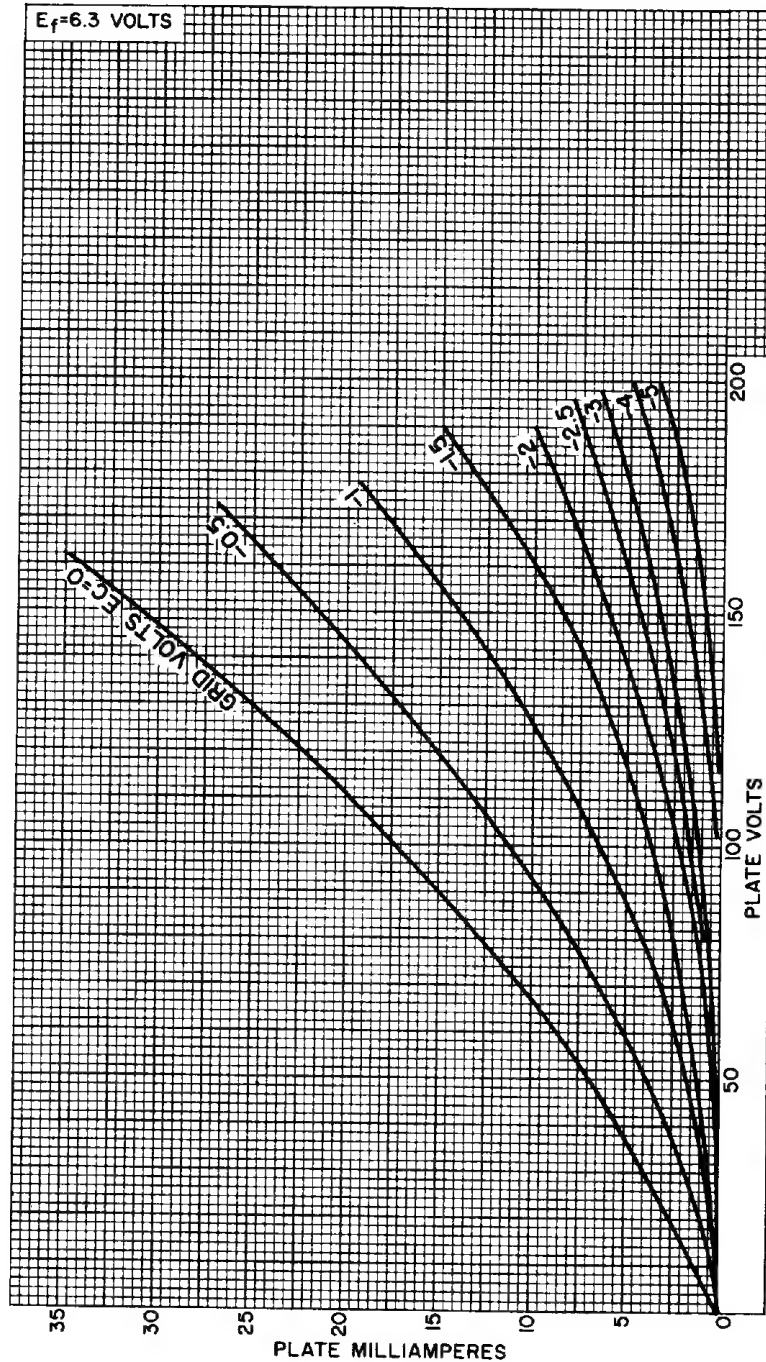


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# 6HM5/6HA5

## AVERAGE PLATE CHARACTERISTICS



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